PATENT

I CLAIM:

- 1. In a wireless data communications system wherein mobile units become associated with access points, and wherein association between a mobile unit and an access point is changed as mobile units move within an area having a plurality of access points, and wherein selection of an access point for association with a mobile unit is made according to selection criteria including a plurality of selection parameters, and wherein said system includes arrangements for determining location of a mobile unit within said area, the improvement wherein said selection parameters include location of said mobile unit when there are a plurality of access points available for association with said mobile unit.
- 2. The improvement specified in claim 1 wherein said access points are RF Ports associated with a cell controller and wherein association functions are performed in said cell controller.
- 3. The improvement specified in claim 2 wherein said cell controller monitors traffic volume for said access points and wherein said selection parameters include range from said mobile unit to said access points, signal strength from said mobile unit to said access points and traffic volume for said access points.
- 4. The improvement specified in claim 1 wherein said selection parameters further include direction of change of location of said mobile unit.
- 5. In a wireless data communications system wherein mobile units become associated with access points, and wherein association between a mobile unit and an

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access point is changed as mobile units move within an area having a plurality of access points, and wherein selection of an access point for association with a mobile unit is made according to selection criteria including a plurality of selection parameters, and wherein said system includes arrangements for determining direction of change of location of a mobile unit within said area, the improvement wherein said selection criteria includes direction of change of location of said mobile unit when there are a plurality of access points available for association with said mobile unit.

- 6. The improvement specified in claim 5 wherein said access points are RF Ports associated with a cell controller and wherein association functions are performed in said cell controller.
- 7. The improvement specified in claim 6 wherein said cell controller monitors traffic volume for said access points and wherein said selection parameters include change of range from said mobile unit to said access points, signal strength from said mobile unit to said access points and traffic volume for said access points.
- 8. In a wireless data communications system wherein mobile units within an area become associated with access points, and wherein said system includes arrangements for determining location of a mobile unit within said area, a method for avoiding collisions of packets transmitted by said mobile units to an associated access point, comprising assigning mobile units in a selected portion of said area to another access point.

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9. In a wireless data communications system wherein mobile units within an area become associated with access points, and wherein said system includes arrangements for determining location of a mobile unit within said area, a method for avoiding collisions of packets transmitted by said mobile units to an associated access point, comprising assigning mobile units in a first selected portion of said area to a first channel and assigning mobile units in a second selected portion of said area to a different channel.

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